UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

ELLIOTT COMPANY OF INDIANAPOLIS, INC., on behalf of itself and all others similarly situated,

Plaintiffs,

v.

BAYER A.G.; BAYER CORPORATION; COVESTRO LLC; BASF SE; BASF CORPORATION; DOW CHEMICAL COMPANY; HUNTSMAN INTERNATIONAL LLC; HUNTSMAN CORPORATION; WANHUA CHEMICAL GROUP CO., LTD.; WANHUA CHEMICAL AMERICA CO., LTD.; MITSUI CHEMICALS, INC.; MITSUI CHEMICALS AMERICA, INC.; MCNS; MCNS POLYURETHANES USA INC.,

Defendants.

Case No. 18-cv-6882

CLASS ACTION COMPLAINT

JURY TRIAL DEMANDED

CLASS ACTION COMPLAINT

NOW COMES the Plaintiff, ELLIOTT COMPANY OF INDIANAPOLIS, INC., by and through undersigned counsel, and as and for their Complaint against Defendants BAYER A.G.; BAYER CORPORATION; COVESTRO LLC; BASF SE; BASF CORPORATION; DOW CHEMICAL COMPANY; HUNTSMAN INTERNATIONAL LLC; HUNTSMAN CORPORATION; WANHUA CHEMICAL GROUP CO., LTD.; WANHUA CHEMICAL AMERICA CO., LTD.; MITSUI CHEMICALS, INC.; MITSUI CHEMICALS AMERICA, INC.; MCNS; and MCNS POLYURETHANES USA INC., states as follows:

NATURE OF THE ACTION

1. Plaintiff Elliott Company of Indianapolis, Inc. ("Plaintiff"), individually and on behalf of a class of all those similarly situated, brings this action for treble damages under

Sections 1 and 3 of the Sherman Act (15 U.S.C. §§ 1, 3) against Defendants, and demands a trial by jury. Except with respect to the allegations as to the named Plaintiff, all other allegations herein are based on information and belief.

- 2. This action arises out of a conspiracy to violate federal antitrust laws by manufacturers and sellers of methylene diphenyl diisocyanate ("MDI") and toluene diisocyanate ("TDI") who sold directly to purchasers in the United States, its territories and the District of Columbia (and their controlled subsidiaries, affiliates, agents and/or or joint ventures). Those manufacturers and/or sellers consist of: Bayer A.G.; Bayer Corporation; Covestro LLC (formerly known as Bayer MaterialScience LLC); BASF SE; BASF Corporation; Dow Chemical Company; Huntsman International LLC; Huntsman Corporation; Wanhua Chemical Group Co., Ltd.; Wanhua Chemical America Co., Ltd.; Mitsui Chemicals, Inc.; Mitsui Chemicals America, Inc.; MCNS (a.k.a. Mitsui Chemicals & SKC Polyurethanes, Inc.); and MCNS Polyurethanes USA Inc. (collectively, "Defendants").
- 3. Plaintiff alleges a conspiracy among the Defendants and certain unnamed coconspirators to fix, raise, maintain and/or stabilize prices for MDI and TDI products sold in the United States. The conspiracy was implemented in part through an agreement among Defendants to limit production of MDI and TDI products and thereby drive up prices for these products.
- 4. MDIs and TDIs are precursor ingredients for the manufacture of polyurethane foams and thermoplastic polyurethanes. Flexible polyurethane foam is used in products such as mattresses, upholstered furniture and car seats. Rigid polyurethane foam is used mostly as an efficient insulating material for buildings and refrigeration appliances. Thermoplastic polyurethanes are used in diverse product groups such as clothing, mobile electronic devices

and sports equipment.

- 5. In the years leading up to the conspiracy period (referring to the period from the start of the conspiracy on January 1, 2016 to the present), prices for MDIs and TDIs in the United States and across the globe were low and relatively stable. As noted by the Independent Chemical Information Service ("ICIS") in September of 2013, MDI prices in the United States were "steady, amid balanced supply and demand. No pricing announcements have been heard, suggesting prices will remain[] stable into October." In 2015, prices actually *declined* due to lower costs of raw materials, such as benzene and oil.
- 6. In 2014, Defendants (Covestro, Dow, BASF, Huntsman, Wanhua and Mitsui as identified below) were experiencing reduced profits in MDI and TDI products caused by a "market oversupply"—that is, lower prices due to increased competition owing to more product availability. MDI and TDI prices continued to decline into 2015 partly due to decreasing raw material costs. In order to stop the declining profit rates and increase their margins, Defendants conspired to fix, raise, stabilize and maintain MDI and TDI prices by: (a) engaging in coordinated limitations on the production of these products and (b) engaging in a series of lockstep price increases for these products.
- 7. Starting in 2016, Defendants collectively carried out their plan to reverse the oversupply in the MDI and TDI markets by permanently closing and/or temporarily suspending operations of some of their MDI and TDI manufacturing plants located around the world, as well as operating such plants at reduced capacity. Prior to the conspiracy, plant-related issues were rare, with only eight incidents reported during the years 2012–15. Thereafter, however, Defendants reported at least nine plant closures or production limitations that resulted in reduced supply of MDIs and TDIs in 2016, at least 15 plant closures or production limitations in 2017,

and at least eight plant closures or production limitations thus far in 2018. This sudden appearance of plant closures or production limitations across all major manufacturers and sellers of MDI and TDI products is unprecedented and cannot be explained by mere coincidence. Rather, it is the result of an illegal agreement among the Defendants.

- 8. Defendants' collective action to tighten the availability of MDI and TDI products worldwide caused a supply shortage globally, which in turn led to a series of price hikes in MDI and TDI products sold in the United States and elsewhere that commenced in 2016 and that continue to the present. These price hikes were not caused by increases in the cost of raw materials. Defendants have maintained artificially inflated prices of MDI and TDI products to this day. As a result of these price hikes, current prices for TDI and MDI products have reached unprecedented high levels.
- 9. Antitrust enforcers have taken notice of these developments. On June 11, 2018, it was revealed that in February of this year the Antitrust Division of the United States Department of Justice ("DOJ") has caused a federal grand jury to issue subpoenas to manufacturers of MDI products in connection with a criminal investigation of price-fixing of MDI products. Defendants BASF and Covestro have admitted receiving subpoenas, and it is highly likely that Dow, Huntsman, Bayer, Wanhua, and Mitsui did (or will) as well.
- 10. This is not the first time producers of TDI and MDI products have run afoul of the antitrust laws, as reflected in prior criminal and civil cases concerning a conspiracy to fix, *inter alia*, MDI and TDI prices that is discussed in greater detail below.
- 11. In the prior class action cases, Dow was subjected to a \$1.06 billion judgment after a jury found it guilty of antitrust violations and Huntsman, BASF and Bayer Corporation (the predecessor of Covestro), among others, paid \$140 million in settlements. In affirming the

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judgment against Dow, the United States Court of Appeals for the Tenth Circuit observed that there was undisputed evidence of "the existence of an agreement to coordinate price-increase announcements and try to make them stick" and "the existence of evidence involving coordination in announcing price increases." In re Urethane Antitrust Litig., 768 F.3d 1245, 1263 (10th Cir. 2014), cert. dismissed, 137 S.Ct. 291 (2016) ("Urethanes"). The Tenth Circuit noted testimony presented by plaintiffs' expert that there was " 'a widespread pattern of communication' among the top executives of the defendant companies . . . [He] was struck not only by the frequency and secrecy of these communications but also by their timing, for the contacts frequently occurred within days of a lockstep price-increase announcement. This proximity suggested that the price-increase announcements had been coordinated." Id. at 1265 (citation omitted). The evidence showed that the industry was "ripe for collusion," given that market power was "concentrated in the hands of only a handful of firms," "the market had high barriers to entry," the products at issue were "homogeneous," there "were no close product substitutes available to customers," "there was excess capacity for MDI [and] TDI" products, and trade associations existed that provided an opportunity to engage in price-fixing. *Id*.

12. The situation this time around is similar in some respects, and significantly different in others. Defendants Dow, Bayer, Covestro, BASF, and Huntsman are still dominant players in the industry. A couple of relatively newer industry players—Wanhua and Mitsui—are now also in the market. The market still reflects all of the aforementioned characteristics conducive to collusion. Beginning in 2016, price increases have occurred in a coordinated and lockstep manner. As a result, prices for MDI and TDI products have increased drastically. What is also new, however, is that they have reached *historically unprecedented levels and have stuck* for over two and a half years, something never seen before. These increased price levels are

counterintuitive, given the existence of excess capacity and relatively lower costs of raw materials. Only an agreement to fix prices that is a *per se* violation of Sections 1 and 3 of the Sherman Act explains this conduct.

- 13. Another novel feature of the present conspiracy is Defendants' repeated invocation of *force majeure* or production limitations to curtail production of MDI and TDI products for various periods and thereby ensure that customers paid collusively-set supracompetitive prices. "[B]ecause economics teaches that an agreement to limit output is tantamount to an agreement to fix prices, courts also have applied the *per se* rule to agreements to limit production or set quotas" 1 AMERICAN BAR ASSOCIATION, ANTITRUST LAW DEVELOPMENTS 91 (8th ed. 2017) (footnote omitted).
- 14. An industry dominated by recidivist antitrust violators is again conspiring to victimize members of the Plaintiff Class by forcing them to pay collusively-fixed prices in violation of Sections 1 and 3 of the Sherman Act.
- 15. Plaintiff therefore brings this action on behalf of all individuals and entities that purchased MDI and TDI products in the United States directly from Defendants, as well as their predecessors, subsidiaries, and affiliates, from at least as early as January 1, 2016 through the present (the "Class Period"). At all relevant times, Defendants and their co-conspirators manufactured and/or sold MDI and TDI products. During the Class Period, Defendants and their co-conspirators agreed, combined, and conspired with each other to fix, raise, maintain and/or stabilize prices and to limit supply for MDI and TDI products sold in the United States. As a result of Defendants' unlawful conduct, Plaintiff and the Class (as defined in this Complaint) paid artificially inflated prices for these products, and therefore have suffered injury to their business and property.

JURISDICTION AND VENUE

- 16. This action is instituted under Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15, 26) to recover treble damages, and the costs of this suit, including reasonable attorneys' fees, against Defendants for the injuries sustained by Plaintiff and the members of the Class by reason of the violations, as hereinafter alleged, of Sections 1 and 3 of the Sherman Act (15 U.S.C. §§ 1, 3).
- 17. This Court has jurisdiction under 28 U.S.C. §§ 1331 and 1337 and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15(a), 26). In addition, jurisdiction is conferred upon this Court by 28 U.S.C. §§ 1332(d) and 1367.
- 18. Venue is proper in this District pursuant to Sections 4, 12, and 16 of the Clayton Act (15 U.S.C. §§ 15, 22, 26; 28 U.S.C. § 1391 (b), (c), (d)) because during the Class Period, the Defendants resided, transacted business, were found within, and/or had agents within this District, and a substantial part of the events giving rise to Plaintiff's claims occurred and a substantial portion of the affected interstate trade and commerce described below has been carried out in this District.
- 19. This Court has personal jurisdiction over Defendants because, *inter alia*, each: (a) transacted business in this District; (b) directly or indirectly manufactured and/or sold MDI and/or TDI products in this District; (c) has substantial aggregate contacts with this District; and/or (d) engaged in an illegal price-fixing conspiracy that was directed at, and had the intended effect of causing injury to, persons and entities residing in, located in, or doing business in this District. For example, Defendant Mitsui Chemicals America, Inc. has its corporate headquarters at 800 Westchester Avenue, Suite 5306, Rye Brook, New York 10573, where it engages in the "... marketing of Mitsui Chemicals products," including MDIs and TDIs.

PLAINTIFF

20. Plaintiff Elliott Company of Indianapolis, Inc. ("Elliott Co.") is an Indiana corporation with its principal place of business in Indianapolis, Indiana. Elliott Co. purchased in the United States one or more of the products at issue directly from one or more of the Defendants during the Class Period.

DEFENDANTS

- 21. **Bayer and Covestro Defendants.** Defendant Bayer A.G. is a German corporation with its principal place of business in Leverkusen, Germany. Bayer A.G. has extensive operations in the United States, either directly or through its wholly-owned and controlled subsidiaries and affiliates. During the Class Period, Bayer A.G. manufactured and/or sold MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere, directly or through its wholly-owned subsidiaries Bayer MaterialScience LLC (currently d/b/a Covestro LLC) and Bayer Corporation.
- 22. Defendant Bayer Corporation ("Bayer Corp.") is an Indiana corporation with its principal place of business in Pittsburgh, Pennsylvania. It is a wholly-owned subsidiary of Bayer A.G. During the Class Period, Bayer Corp. manufactured and/or sold MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere. Bayer A.G. controls Bayer Corp. both generally and with respect to the conduct of Bayer Corp. in furtherance of the unlawful acts alleged in this Complaint. Bayer A.G., Bayer Corp. and Bayer MaterialScience are collectively referred to as "Bayer."
- 23. Defendant Covestro LLC is a Delaware company with its principal place of business in Pittsburgh, Pennsylvania. On September 1, 2015, Covestro LLC was created as a spin-off from Bayer MaterialScience LLC ("Bayer MaterialScience"), albeit remaining a 100%

subsidiary of Bayer A.G. As of February of 2017, Bayer A.G. still held 64% of Covestro LLC. By September of 2017, Bayer A.G.'s ownership stake in Covestro LLC had declined to below 25%; it sold its remaining interest by May of 2018 (excluding Bayer's pension fund, which owned about 9% of Covestro LLC's shares). During the Class Period, Covestro LLC (as itself and formerly as Bayer MaterialScience) manufactured and/or sold MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere. Up until around September of 2017, Bayer A.G. controlled Covestro LLC (formerly d/b/a Bayer MaterialScience) both generally and with respect to the conduct of Covestro LLC in furtherance of the unlawful acts alleged in this Complaint. Bayer A.G., Bayer Corp., Bayer MaterialScience, and Covestro LLC are collectively referred to as "Covestro."

- 24. **BASF Defendants.** Defendant BASF SE is a German corporation with its principal place of business in Ludwigshafen, Germany. BASF SE has extensive operations throughout the United States, either directly or through its wholly-owned and controlled subsidiaries and affiliates. During the Class Period, BASF SE manufactured and/or sold MDI and/or TDI products to purchasers in the United States, its territories, and the District of Columbia, and elsewhere, directly or through predecessors, affiliates and/or subsidiaries.
- 25. Defendant BASF Corporation ("BASF Corp.") is a Delaware corporation with its principal place of business in Florham Park, New Jersey. During the Class Period, BASF Corp. manufactured and/or sold MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere. BASF Corp. is the North American affiliate of BASF SE. BASF SE controls BASF Corp. both generally and with respect to the conduct of BASF Corp. in furtherance of the unlawful acts alleged in this Complaint. BASF SE and BASF Corp. are collectively referred to as "BASF."

- 26. **Dow Defendant.** Defendant Dow Chemical Company ("Dow") is a Delaware corporation with its principal place of business in Midland, Michigan. During the Class Period, Dow manufactured and/or sold MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere. On December 11, 2015, Dow and E.I. du Pont de Nemours and Company ("DuPont") entered into an agreement and plan of merger, under which the companies became subsidiaries of DowDuPont Inc. ("DowDuPont"), a holding company.
- 27. **Huntsman Defendants.** Defendant Huntsman International LLC ("Huntsman International") is a Delaware company with its principal place of business in Woodlands, Texas. During the Class Period, Huntsman International manufactured and/or sold MDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere. Huntsman International is a wholly-owned subsidiary of Huntsman Corporation.
- 28. Defendant Huntsman Corporation ("Huntsman Corp.") (formerly Huntsman LLC) is a Delaware corporation with its principal place of business in Salt Lake City, Utah. During the Class Period, Huntsman Corp. manufactured and/or sold MDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere, either directly or through its wholly-owned and controlled subsidiaries and affiliates. Huntsman Corp. controls Huntsman International generally and with respect to the conduct of Huntsman International in furtherance of the unlawful acts alleged in this Complaint. Huntsman Corp. and Huntsman International are collectively referred to as "Huntsman."
- 29. **Wanhua Defendants.** Defendant Wanhua Chemical America Co., Ltd. ("Wanhua America") is a Nevada corporation with its principal place of business in Newtown Square, Pennsylvania. During the Class Period, Wanhua America manufactured and/or sold

MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere. Wanhua America is a wholly-owned subsidiary of Wanhua Chemical Group Co., Ltd.

- 30. Wanhua Chemical Group Co., Ltd. ("Wanhua China") is a Chinese corporation with its principal place of business in Yantai, China. Wanhua China has extensive operations throughout the United States, its territories, and the District of Columbia, either directly or through its wholly-owned and controlled subsidiaries and affiliates. During the Class Period, Wanhua China manufactured and/or sold MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere, directly or through predecessors, affiliates and/or subsidiaries. Wanhua China controls Wanhua America both generally and with respect to the conduct of Wanhua America in furtherance of the unlawful acts alleged in this Complaint. Wanhua China and Wanhua America are collectively referred to as "Wanhua."
- 31. **Mitsui Defendants.** Mitsui Chemicals America, Inc. ("Mitsui America") is a Delaware corporation with its principal place of business in Rye Brook, New York. During the Class Period, Mitsui America manufactured and/or sold MDI and/or TDI products to purchasers throughout the United States, its territories, and the District of Columbia, and elsewhere. Mitsui America is a wholly-owned subsidiary of Mitsui Chemicals, Inc.
- 32. Mitsui Chemicals, Inc. ("Mitsui Japan") is a Japanese corporation with its principal place of business in Tokyo, Japan. Mitsui Japan has extensive operations throughout the United States, either directly or through its wholly-owned and controlled subsidiaries and affiliates. During the Class Period, Mitsui Japan manufactured and/or sold MDI and/or TDI products to purchasers in the United States, its territories, and the District of Columbia, and

elsewhere, directly or through predecessors, affiliates and/or subsidiaries.

- 33. MCNS (a.k.a. Mitsui Chemicals & SKC Polyurethanes, Inc.) is a Korean and Japanese corporation with its principal place of business in Seoul, Korea. MCNS was established in July 1, 2015 as an equally-owned joint venture between Mitsui Japan and South Korea-based SKC Polyurethanes Inc. MCNS has operations throughout the United States, its territories, and the District of Columbia, either directly or through its wholly-owned and controlled subsidiaries and affiliates. During the Class Period, MCNS manufactured and/or sold MDI and/or TDI products to purchasers in the United States, its territories, and the District of Columbia, and elsewhere, directly or through predecessors, affiliates, and/or subsidiaries.
- 34. MCNS Polyurethanes USA Inc. ("MCNS USA") is a Georgia corporation with its principal place of business in Covington, Georgia. During the Class Period, MCNS USA manufactured and/or sold MDI and/or TDI products to purchasers in the United States, its territories, and the District of Columbia, and elsewhere. MCNS USA is a wholly-owned subsidiary of MCNS. Mitsui Japan controls Mitsui America, MCNS and MCNS USA both generally and with respect to the conduct of Mitsui America, MCNS and MCNS USA in furtherance of the unlawful acts alleged in this Complaint. Mitsui Japan, Mitsui America, MCNS USA, and MCNS are collectively referred to as "Mitsui."

CO-CONSPIRATORS

- 35. Various other persons, firms and corporations, not named as Defendants herein, have participated as co-conspirators with Defendants and have performed acts and made statements in furtherance of the conspiracy.
- 36. Whenever in this Complaint reference is made to any act, deed or transaction of any corporation, the allegation means that the corporation engaged in the act, deed or transaction

by or through its officers, directors, agents, employees or representatives while they were actively engaged in the management, direction, control or transaction of the corporation's business or affairs.

37. When Plaintiff refers to a corporate family or companies by a single name in its allegations of participation in the conspiracy, it is to be understood that the Plaintiff is alleging that one or more employee or agent of entities within the corporate family engaged in conspiratorial acts or meetings on behalf of all of the Defendant companies within that family. In fact, the individual participants in the conspiratorial meetings and discussions did not always know the corporate affiliation of their counterparts, nor did they distinguish among the entities within a corporate family. The individual participants entered into agreements on behalf of, and reported these meetings and discussions to, their respective corporate families. As a result, the entire corporate family was represented in meetings and discussions by their agents and were parties to the agreements reached by them. Furthermore, to the extent that subsidiaries within corporate families distributed products containing MDI and/or TDI, these subsidiaries played a significant role in the alleged conspiracy because Defendants wished to ensure that the prices paid for such products would not undercut the pricing agreements reached at these various meetings. Thus, all Defendant entities within the corporate families were active, knowing participants in the alleged conspiracy.

CLASS ACTION ALLEGATIONS

38. Plaintiff brings this action on behalf of itself and as a class action under the provisions of Rule 23(a), (b)(2) and (b)(3) of the Federal Rules of Civil Procedure on behalf of all members of the following Class:

All entities in the United States, its territories, and/or the District of Columbia who purchased directly (including through controlled subsidiaries, agents, affiliates and/or joint ventures) Methylene Diphenyl Diisocyanate Products and/or Toluene Diisocyanate Products from any of the Defendants or their subsidiaries or affiliates, at any time from January 1, 2016 until the present. The Class excludes the Defendants, co-conspirators, and any of their parents, subsidiaries or affiliates. The Class also excludes all judicial officers presiding over this action and their immediate family members and staff, and any juror assigned to this action.

- 39. Plaintiff does not know the exact number of Class members because such information is in the exclusive control of Defendants or their co-conspirators. But due to the nature of the trade and commerce involved, Plaintiff believes that there are hundreds of Class members as above-described, the exact number and their identities being known only by Defendants and their co-conspirators.
- 40. The Class is so numerous and geographically dispersed that joinder of all members is impracticable.
 - 41. There are questions of law and fact common to the Class, including:
 - a. Whether Defendants and their co-conspirators engaged in a
 combination and conspiracy among themselves to fix, raise, maintain
 and/or stabilize prices of MDI and TDI products sold in the United
 States, its territories and/or the District of Columbia;
 - b. The identity of the participants of the alleged conspiracy;
 - The duration of the alleged conspiracy and the acts carried out by
 Defendants and their co-conspirators in furtherance of the conspiracy;
 - d. Whether the alleged conspiracy violated Sections 1 and 3 of the Sherman Act (15 U.S.C. §§ 1, 3);

- e. Whether the conduct of Defendants and their co-conspirators, as alleged in this Complaint, caused injury to the business or property of the Plaintiff and the other members of the Class; and
- f. The effect of the alleged conspiracy on the prices of MDI and TDI products sold in the United States, its territories and the District of Columbia during the Class Period; and
- g. The appropriate class-wide measure of damages.
- 42. Plaintiff's claims are typical of the claims of the members of the Class. Plaintiff and all members of the Class are similarly affected by Defendants' wrongful conduct in that they paid artificially inflated prices for MDI and TDI products purchased directly from Defendants and/or their co-conspirators. Plaintiff's claims arise out of the same common course of conduct giving rise to the claims of the other members of the Class.
- 43. Plaintiff will fairly and adequately protect the interests of the Class. Plaintiff's interests are coincident with, and not antagonistic to, those of the other members of the Class. Plaintiff is represented by counsel who are competent and experienced in the prosecution of antitrust and class action litigation.
- 44. The questions of law and fact common to the members of the Class predominate over any questions affecting only individual members, including legal and factual issues relating to liability and damages.
- 45. Class action treatment is a superior method for the fair and efficient adjudication of the controversy, in that, among other things, such treatment will permit a large number of similarly situated persons to prosecute their common claims in a single forum simultaneously, efficiently and without the unnecessary duplication of evidence, effort and expense that

numerous individual actions would engender. The benefits of proceeding through the class mechanism, including providing injured persons or entities with a method for obtaining redress for claims that might not be practicable to pursue individually, substantially outweigh any difficulties that may arise in management of this class action.

TRADE AND INTERSTATE COMMERCE

- 46. The activities of Defendants and their co-conspirators, as described in this Complaint, were within the flow of and substantially affected interstate commerce.
- 47. During the Class Period, Defendants and their co-conspirators, manufactured, sold and/or shipped substantial quantities of MDI and TDI products, in a continuous and uninterrupted flow of interstate commerce to customers located in states other than the states in which the Defendants produced these products. In addition, the primary raw materials used to manufacture MDI and TDI products were purchased and shipped in a continuous and uninterrupted flow of interstate commerce.
- 48. The conspiracy in which the Defendants and their co-conspirators participated had a direct, substantial, and reasonably foreseeable effect on United States commerce.

DESCRIPTIONS OF MDI AND TDI

- 49. Diisocyanates are a family of chemical building blocks primarily used to make polyurethane products, such as rigid and flexible foams, coatings, adhesives, sealants and elastomers. Diisocyanates can also be referred to more broadly as "isocyanates" because organic compounds that contain an isocyanate group are called isocyanates.
- 50. Polyurethane was first discovered and patented in 1937 by Otto Bayer and his coworkers at the laboratories of I.G. Farbenindustrie (now known as Bayer A.G.) in

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Leverkusen, Germany. The German patent covered aromatic diisocyanates, which are methylene diphenyl diisocyanate and toluene diisocyanate.

- 51. Polyurethanes are produced by combining diisocyanates with polyols and other chemical additives. Diisocyanates used in polyurethane production are divided into two types:

 (1) aromatic diisocyanates ("ADI") and (2) aliphatic diisocyanates.
- 52. There are two primary ADIs: (1) MDI (methylene diphenyl diisocyanate) and (2) TDI (toluene diisocyanate).
- 53. MDI is a type of ADI used in combination with polyether polyols as a raw material for the production of flexible foams as well as semi-rigid and rigid polyurethane plastics. Its primary applications are construction, consumer appliances, automotive components and shoe soles.
- 54. TDI is another type of ADI used in combination with polyether polyols as a raw material for the production of flexible foams. Its main applications include mattresses and cushions for furniture, packaging foam, and automotive seating, among other applications.
- 55. "MDI Products" as used in this Complaint, refer to MDIs manufactured and/or sold by the Defendants in this case.
- 56. "TDI Products" as used in this Complaint, refer to TDIs manufactured and/or sold by the Defendants in this case.

THE MDI AND TDI MARKETS

- 57. The polyurethane market is a \$53 billion global market that is projected to grow 7% per year for the next decade.
- 58. During the Class Period, the largest manufacturers and sellers of MDIs were Defendants Wanhua, BASF, Covestro, Huntsman, Dow and Mitsui. MDI market shares in

2016 were as follows: Wanhua (28%, including shares of subsidiary BorsodChem); BASF (21%); Covestro (19%); Huntsman (13%); Dow (9%); and Mitsui (less than 10%), which amounts to over 90% of the global MDI market.

- 59. During the Class Period, the largest manufacturers and sellers of TDIs were Defendants BASF, Covestro, Wanhua, Mitsui, and Dow. TDI market shares in 2016 were as follows: BASF (30%); Covestro (25%); Wanhua (13%, including shares of subsidiary BorsodChem); Mitsui (8%); and Dow (less than 8%), which amounts to over 76% of the global TDI market.
- 60. MDIs and TDIs are highly profitable, which is why they make up a large segment of the Defendants' overall business. For example, Covestro reported in its 2016 Annual Report that 6.1 billion euros, or 50% of Covestro's sales, were attributed to its Polyurethane segment consisting of MDIs, TDIs and polyols. Similarly, in its 2016 Annual Report, Huntsman stated that "[i]n 2016, our MDI EBITDA increased by 9%." In February of 2017, BASF reported that its operating profit was six billion euros and polyurethane was responsible for 9% of BASF's total sales of 70 billion euros, with TDI alone accounting for an estimated 5%.
- 61. The global MDI industry has doubled in size during the last decade or so. The industry produced 3.3 million metric tons in 2005, 4.4 million metric tons in 2010, and then ballooned to 6.4 million metric tons in 2016. Much of this growth was driven by global megatrends in the energy management, food preservation, demographics and transportation sectors.
- 62. In 2013, the global production capacity for TDI was estimated to be 2.98 million metric tons. The demand for the product has grown substantially since then, given its

use in the creation of flexible polyurethane foam.

- 63. Covestro's 2015 Annual Report projected that demand for MDIs would increase from 5.710 kt in 2014 to 7.990 kt in 2020, a 5.8% increase in compound annual growth rate ("CAGR"). The report also projected that demand for TDIs would increase from 2.240 kt in 2014 to 2.980 kt in 2020, a 4.8% growth in CAGR.
- 64. MDI and TDI supplies in the United States were stable in the years leading up to the conspiracy period. In September of 2014, ICIS observed that MDI prices in the United States were "steady, amid balanced supply and demand. No pricing announcements have been heard, suggesting prices will remain[] stable into October." Indeed, prices for MDI and TDI products remained relatively stable between 2012 and 2015.
- 65. During the Class Period, Defendants manufactured and/or sold MDI and TDI products throughout the United States.
- 66. At all relevant times, Defendants had substantial market power with respect to MDI and/or TDI products. During the Class Period, Defendants exercised this power to maintain supracompetitive prices for MDI and TDI products without losing so many sales as to make the elevated price unprofitable.
- 67. During the Class Period, Defendants sold MDI and TDI products at prices in excess of marginal costs, in excess of a competitive price, and enjoyed high profit margins.

HISTORY OF COLLUSION BY DEFENDANTS

- 68. As noted above, this is not the first time that several of the Defendants have faced liability for price-fixing with respect to chemicals used in making polyurethane.
- 69. In March of 2004, Crompton Corporation ("Crompton"), now known as Chemtura Corporation, announced that it had entered into a plea agreement with the DOJ. It

pled guilty to criminal charges of fixing prices for rubber chemicals and paid a \$50 million fine. *United States v. Crompton Corp.*, No. CR 04-0079 MJJ (N.D. Cal.). Crompton thereafter received conditional amnesty from the DOJ in connection with its investigation into price-fixing of urethane products.

- As a result of cooperation from Crompton, the DOJ filed a criminal information against Bayer on September 30, 2004, alleging participation in a price-fixing conspiracy with respect to aliphatic polyester polyols, a compound used in the making of polyurethane. *United States v. Bayer Corp.*, No. CR 04-0318 VRW (N.D. Cal.). On May 24, 2005, Bayer agreed to plead guilty to a criminal conspiracy to fix the prices of such polyester polyols from 1998 to 2002, and paid a \$33 million fine.
- 71. In 2005 and 2006, the DOJ commenced criminal investigations against Dow, BASF, Huntsman, and Lyondell Chemical Company ("Lyondell") (now LyondellBasell). No charges resulted from those investigations.
- 72. The two guilty pleas led to the filing of various class actions involving polyester polyols that were centralized by the Judicial Panel on Multidistrict Litigation ("JPML") in the District of Kansas. *In re Urethane Antitrust Litig.*, 333 F.Supp.2d 1379 (J.P.M.L. 2004). The defendants named in these actions included Bayer, Chemtura, Dow, BASF and Lyondell.
- 73. In 2005, additional class cases were filed that alleged price-fixing conspiracy claims against Bayer, Chemtura, Dow, BASF and Lyondell for a price-fixing conspiracy as to MDI, TDI, and polyether polyols. After the JPML sent these cases to the district court in Kansas, the two sets of cases proceeded on distinct tracks except for discovery.
 - 74. The polyester polyol cases resulted in settlements and did not go to trial. Similarly,

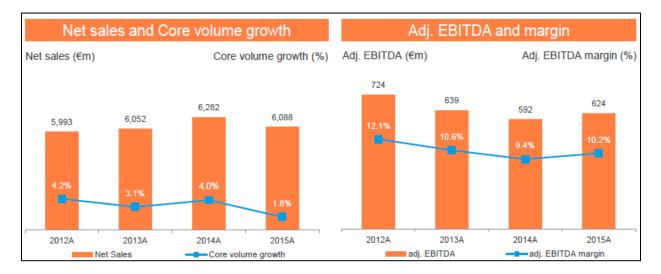
plaintiffs in the polyether polyol cases settled with Bayer, BASF and Huntsman for a total of \$140 million. The case went to trial in 2013 against the lone remaining defendant, Dow. A five-week trial resulted in a \$400 million verdict for plaintiffs. After trebling and assessment of costs, the judgment was for \$1.06 billion. In the *Urethanes* decision cited earlier, the United States Court of Appeals for the Tenth Circuit affirmed that judgment. In February of 2016, Dow settled the case for \$835 million.

<u>DEFENDANTS CREATE UNPRECEDENTED SHORTAGES IN MDI AND</u> TDI PRODUCTS WITH THE INTENT TO DRIVE UP INDUSTRY-WIDE PRICES

- 75. Even before the completion of Dow's February 2016 settlement, the Defendants in this industry again conspired to fix, raise, stabilize and maintain prices of MDI and TDI products sold in the United States. This time however, the Defendants from *Urethanes*, with the addition of Wanhua and Mitsui, modified their price-fixing agenda by agreeing to artificially reduce overall supply in the global market and then to coordinate with one another in driving up prices in lockstep fashion.
- 76. MDI and TDI pricing was relatively stable in the years leading up to the start of the conspiracy.
- 77. By 2014, Defendants saw limited profits in MDI and TDI products due to an overabundance in the market that kept prices low. In 2015, Covestro explained in its Annual Report that TDI prices decreased in 2014 partly due to "increased competition owing to higher product availability." Furthermore, Covestro's Investor Presentation document dated May 2016 revealed that "EBITDA margin [for MDI and TDI] bottom[ed] out in 2014; working on improving results." MDI prices further decreased in 2015 due to lower benzene and crude prices.
- 78. As demonstrated in the following graph generated by Covestro, as of year 2014, an *increase* in core volume growth led to a *decrease* in its Adjusted EBITDA (income with

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interest, taxes, depreciation and amortization added back in) margin whereas a *decrease* in its volume growth in 2015 generated an *increase* in the company's adjusted EBITDA margin:

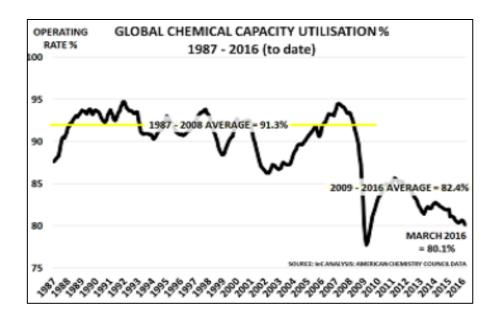


In other words, tightened supply led to higher margins.

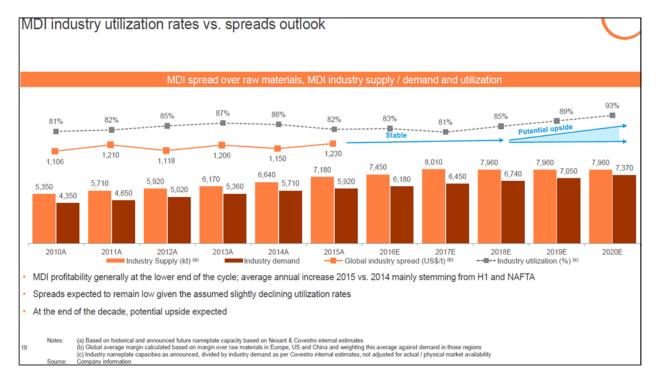
79. This concept was not new to the chemical industry. As illustrated in the following chart, the average global chemical capacity utilization rate¹ between 1987 and 2008 was 91.3%. That rate dropped to 82.4% between 2009 and 2016 and further decreased to 80.1% by March of 2016:

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¹ The capacity utilization rate measures the proportion of potential economic output that is actually realized.



80. The MDI and TDI utilization rates were consistent with this global trend. For example, the chart below, which was created by Covestro in 2016, shows MDI industry utilization rates that were largely in the low 80% range. The utilization rate reached its peak around 2013 and 2014 before dipping slightly back down to the low 80% level in 2015.



Remarkably, Covestro's chart, which contains data up to 2015, accurately predicted that the

MDI industry's utilization rate would continue to decline into 2017, despite Covestro's forecast, also in the same chart, that industry demand is expected to rise rapidly into 2020.

- 81. Amid growing demand for MDI and TDI products in 2016, Defendants aggressively began to decrease their utilization capacity rates by cutting down their production output. This new practice was a sharp break from their past conduct. In the pre-conspiracy period of 2012–15, there were a total of eight MDI or TDI plant production-related issues—one in 2012, three in 2013, none in 2014, and four in 2015—amounting to an average of two production issues per year. However, since the start of the conspiracy—that is, in the years 2016, 2017, and 2018 thus far—there has been a total of at least 32 plant production-related issues and counting. More specifically, the pre-conspiracy rate of 2 plant production issues per year nearly quintupled in 2016 with at least 9 reported incidents and then nearly octupled in 2017 with at least 15 reported incidents, which Defendants explained away with reasons including plant closures, *force majeures*, suspended productions as well as plant operation at reduced capacity. The industry monitor *Polyurethane Daily* in July 2016 characterized these supply disruptions as a "tacit agreement on operation strategy" by manufacturers.
- 82. However, many of these announcements appear irrational and inconsistent. For instance, BASF had spent a billion euros and prepared for years to plan, obtain permits, design, and construct the TDI plant (the "Ludwigshafen Plant") in Rhineland Palatinate, Germany, which opened in November 2015. Since its opening however (which is soon after the start of the conspiracy), the BASF TDI plant hardly progressed beyond a brief trial operation period, with alleged "technical problems" repeatedly causing delays and shutdowns. The plant went completely out of commission in November of 2016, following a report that there was a leak of phosgene gas. On February 15, 2017, BASF announced that although operations would

begin again, its projected production output of 300,000 tons of TDI will not likely be attained until 2018—nearly a year later—attributing the delay to a defective phosgene reactor in the plant. Today, nearly a year and a half after that announcement, the Ludwigshafen Plant is still operating at reduced capacity; BASF has indicated that the reactor was scheduled to go into operation by the end of June. Industry reports indicated that issues at the Ludwigshafen Plant were "instrumental in maintaining supply tightness in the market and driving up pricing." BASF's handling of its so-called "technical problems" at its Ludwigshafen Plant are against its independent business interests because a rational business would not take nearly a year and a half to replace a defective reactor after having invested one billion euros to construct the production plant.

- As another example, on August 30, 2017, Covestro declared *force majeure* on its MDI and TDI plants located in Baytown and Channelview, Texas due to flooding caused by Tropical Storm Harvey. These Texas facilities can produce 340,000 tons/year of MDI and 220,000 tons/year of TDI. Covestro did not lift its *force majeures* until more than a month later for its MDI plants and until two months later for its TDI plants. This conduct is inherently suspicious since Huntsman confirmed on September 3, 2017 that "[a]ll Huntsman sites in the regions affected by Harvey weathered the storm safely, with no safety incidents to our associates"
- 84. Similarly, in May of 2016, Mitsui permanently closed an MDI plant in Omuta, Japan. Given that it takes approximately seven years (and billions of dollars) to plan, obtain permits, design, construct and fully operate an MDI plant, Mitsui's decision to shut down its plant in the face of escalating demand of MDIs was not a rational business decision; it can best be explained as being part of an unlawful conspiracy.

- 85. Covestro had also announced plans to close its MDI production facility in Tarragona, Spain in 2016. It suddenly changed its plans and announced in May of 2017 that it would continue running its Tarragona plant "based on the MDI demand improvement the last years" and because the company was now able to secure a supply of the raw material chlorine. Notably however, Covestro's general manager, Andrea Firenze, emphasized that the decision to suspend the plant closing by the end of that year was only temporary: "I want to emphasize the word suspend. We have been able to get access to the most important raw material, chlorine but the company hasn't taken a final decision for MDI supply in the next years." The notion that a rational business would consider completely shutting down its well-running MDI production facility at the height of MDI pricing and in the face of growing demand, is inexplicable.
- 86. The following charts summarize all publicly reported incidents of MDI/TDI plant closures, *force majeures* ("FM"), suspensions of production and reports of operation at reduced rates during the pre-conspiracy period (2012–15) and conspiracy period (at least January 1, 2016 to present), respectively:

Publicly Reported Plant Production Issues in Pre-Conspiracy Period

	2012	2013	2014	2015
•	3/23/2012, Dow declared FM on MDI plants in Freeport and La Porte, Texas.	4/22/2013, Huntsman declared FM on MDI plant in Rozenberg. Netherlands.		3/23/2015, BASF declared FM for Louisiana MDI plant.
		March 2013, Dow runs MDI plant in State, Germany at reduced rate. March 2013, BASF runs		 5/27/2015, BASF closed MDI plant in South Korea for maintenance. 5/27/2015, BASF closed
		MDI plant in Antwerp, Belgium at reduced rate.		TDI plant in South Korea for maintenance. July 2015, Covestro
				closed MDI plant in Brazil.

Publicly Reported Plant Production Issues in Conspiracy Period

2016	2017	2018	
March of 2016, Mitsui suspended production in TDI plant. Early May 2016, Mitsui terminated Omuta MDI plant in Japan.	 2/2017, Mitsui reduced output at MDI unit in Yeosu, South Korea. 4/25/2017, Covestro declared FM for MDI plant in Brunsbuttel, Germany (lifted 5/22/2017). April 2017, Wanhua had production issues in MDI plant. 	1/24/2018, Dow declared FM on MDI plant in Freeport, Texas (lifted 2/22/2018). 1/24/2018, Dow declared FM on TDI plant in Freeport, Texas.	
 May 11, 2016, Covestro declared FM in TDI production in USA. 	-		
 July of 2016, Mitsui suspended production at TDI plant in Omuta. Japan. 10/6/2016, Covestro declared FM in MDI plants in Europe (lifted 12/27/2016). 10/6/2016, Covestro declared FM 	 May 2017, Huntsman had technical issues with MDI plant in Rotterdam, Netherlands. 05/26/2017, BASF declared FM for MDI plant in Geismar, Louisiana (lifted 7/1/2017). 8/14/2017, Wanhua declared FM on MDI plant in Kazincbarcika, Hungary. 	1/25/2018, BASF declared FM on MDI plant in Houston, Texas. 1/31/2018, BASF declared FM on TDI plant in Geismar, LA.	
in MDI plants in Europe (lifted 12/27/2016).	 08/30/2017, Covestro declared FM on MDI plants in Baytown & Channelview, Texas (lifted 10/2/2017). 		
11/2016, BASF suspended TDI plant in Ludwigshafen, Germany (resumed 4/1/2017 at reduced rates).	 08/30/2017 Covestro declared FM on TDI plants Baytown & Channelview, Texas (lifted 10/30/2017). 8/31/2017, Dow declared FM on MDI plant in Freeport, Texas (lifted 9/18/2017). 	 1/2018, BASF closed TDI plant in Ludwigshafen, Germany. Late January, BASF declared FM on MDIs. 	
11/2016, Mitsui running below 50% capacity at MDI plant in Yeosu, South Korea.	 9/8/2017, Mitsui reduced rate of MDI plant in Yeosu, South Korea to 60-70%. 10/5/2017, BASF recalled TDIs from plant in Ludwigshafen, Germany. 	2/1/2018, BASF declared FM on TDI plant in Geismer, Louisiana.	
End of 2016, Huntsman limited output at MDI plant in Rozenburg, Netherlands (returned to normal operations in December 2016).	 12/12/2017, BASF declared FM of MDI plant in Chongqing. 12/2017, Wanhua suspended MDI plant in Ningbo, Zhejiang for maintenance. 	3/24/2018, Huntsman reduced output at MDI plant in Rozenburg, Netherlands.	

- 87. This incessant recurrence of production-related issues on an industry-wide level was historically unprecedented in degree and is utterly inexplicable.
- Moreover, it is important to understand that "plant production problems" that occurred in various parts of the world had a *global* impact on the supply, and therefore the price, of MDI and TDI products sold all over the world, including in the United States. ICIS in February of 2018 noted, "US prices for toluene di-isocyanate (TDI) were assessed 9 cents/lb (\$198/tonne) higher on Wednesday, owing to ongoing *global supply woes*," explaining that production issues in the United States were exacerbated by production issues in Europe and

South Korea that resulted in renewed supply tightness in global markets. *US TDI prices rise on ongoing supply tightness*, ICIS NEWS (Feb. 7, 2018), https://goo.gl/MCNaCq (emphasis added).

- 89. As a direct result of the "production problems" in the Defendants' MDI and TDI facilities, direct purchasers of MDI and TDI products around the globe faced a supply shortage that has now been ongoing for over two and a half years.
- 90. As of 2016, Defendants used the tightened supply of MDI and TDI to justify their multiple rounds of lockstep price increases that were implemented to customers worldwide, including those in the United States. This has caused the price of MDI and TDI products in the United States and elsewhere to skyrocket, and Defendants have maintained their supracompetitive MDI and TDI prices at elevated levels to this day.
- 91. The unprecedented nature of a supply shortage of this lengthy duration is well described in an article published by *Rubber & Plastics News*. There, Recticel's managing director Olivier Chapelle commented, "The rise is completely unprecedented in amplitude and speed," referring to the consistent increase in MDI and TDI prices over the prior 16–18 months caused by the prolonged supply shortage. *High diisocyanate prices could slow polyurethane growth*, RUBBER & PLASTICS NEWS (June 21, 2017), https://goo.gl/zLK7dD. Jon Cheele, managing director at Vita Cellular Foams also commented, "We've been back in our records . . . *We've never seen anything like this duration*. We've seen these quantum of increases, *but we've never seen these absolute prices before*. We have found six-month spikes, six-month drops *but nothing goes over a year*." *Id.* (emphases added).
- 92. Chapelle and Cheele's concerns are echoed in an article published by Joyce Grigorey of Tecnon Orbichem. There, Grigorey observes that "[b]oth the MDI and TDI markets have been plagued by a series of planned and unplanned outages, as well as production

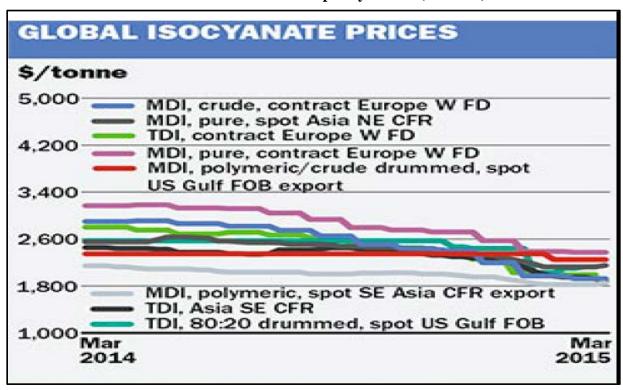
disruptions, which have significantly tightened the global landscape and resulted in significant price increases globally." Grigorey also emphasizes the unusualness of the "length and severity of the supply tightness." Joyce Grigorey, *MDI* and *TDI* to remain tight for the balance of the year, URETHANES TECHNOLOGY INT'L (Sept. 18, 2017), https://goo.gl/9yhxMw.

DEFENDANTS ENGAGE IN LOCKSTEP PRICE INCREASES THAT HAVE LASTED FOR AN UNPRECEDENTED PERIOD AND HAVE RESULTED IN HISTORICALLY HIGH PRICES FOR TDI AND MDI PRODUCTS

- 93. The collusive reductions in supply engaged in by Defendants allowed them to impose a series of lockstep price increases for TDI and MDI products that have been maintained for an unprecedented long period of at least two and a half years and counting. According to a January 2018 report by ICIS, the persistent supply shortages and growing demand is leaving "isocyanate buyers . . . [with] little alternative but to accept consecutive rounds of price increases, with some sellers heard to have taken a 'take it or leave it' attitude towards their price increase initiatives, which would normally be at least partially negotiable."
- 94. On February 27, 2018, Hans-Ulrich Engel, the Vice-Chairman of the Board of Executive Directors and CFO at BASF, stated in an investors' call that "significantly higher prices, especially for MDI and TDI, drove this [sales] growth," explaining that the cause of the increased prices was "due in part to turnarounds and the *force majeure* at our Chongqing plant caused by a natural-gas supply-shortage at our syngas supplier." In that same call, former BASF CEO Kurt Bock confirmed that temporary shutdown of the Chongqing plant "certainly ha[s] some double-digit EBIT impact." He further commented that supplier issues on the U.S. Gulf Coast had also impaired production volumes, which he described as "again a double-digit impact."
 - 95. Indeed, prices of MDI and TDI products commenced an upward trajectory in

2016 that is ongoing and is in stark contrast to pre-conspiracy prices in 2012–15. The charts below compare and depict the stark contrast between pre-conspiracy and conspiracy MDI and TDI pricing trends between those two respective periods:²

Prices of MDI and TDI Products in Pre-Conspiracy Period (2014–15)



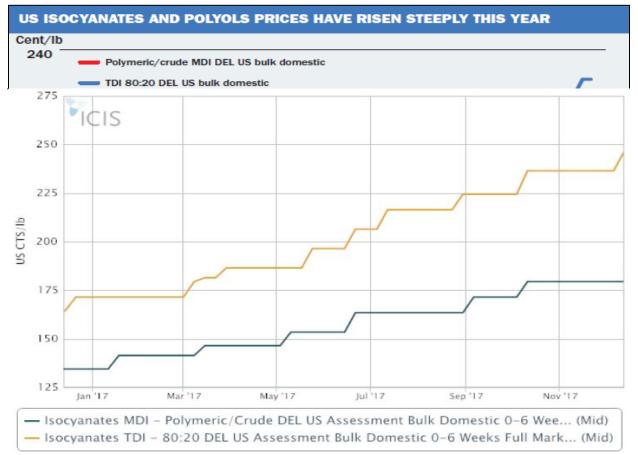
As can be seen from this chart, TDI and MDI prices declined in 2014–15 due to lower prices

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² As the pre-conspiracy and conspiracy period charts found online are graphed in different units—i.e., \$/tonne and cent/lb—converted data for the starting and ending points of the conspiracy period chart is provided as follows: TDI cost around \$2,998.28/ton on June 1, 2016 and around \$4,960.40/ton on September 6, 2017; MDI cost around \$2,976.24/ton on June 1, 2016 and \$3,747.85/ton on September 6, 2017.

of component materials, such as benzene and oil.

Prices of MDI and TDI Products in Conspiracy Period (2016–17)



96. The following chart shows MDI and TDI price increases from January of 2017 through November of 2017:

97. A breakdown of the actual price increase data and effective dates is contained in the chart below compiled using all *publicly reported* MDI price increase announcements between 2015 and 2018, largely by Defendants Dow, Wanhua, BASF:³

³ Huntsman has not released information on specific relevant price increases during the last few years (except for the one from July 1, 2018 noted in the chart), but its earnings reports for 2016, 2017, and 2018, as well as its Annual Report for 2017 indicate that it increased prices on MDI sold in the United States and earned increased revenues as a result. Both in timing and amount, these price increases matched what the rest of the industry did. The same applies to Defendants

Chart of Publicly Reported MDI Price Increase Announcements

2016	2017	2018
 Dow (3/17/2016), \$0.05/lb BASF (3/23/2016), \$0.08 Wanhua (3/30/2016), \$0.06/lb 	 Dow (1/1/2017), \$0.07/lb Wanhua (1/15/2017), \$0.08/lb BASF (1/16/2017), \$0.07/lb 	Dow (01/1/2018), \$0.09/lb BASF (1/1/2018), \$0.08/lb
 Dow (4/1/2016), \$0.05/lb BASF (4/1/2016), \$0.08/lb 	 BASF (2/13/2017), \$0.10/lb Dow (2/15/2017), \$0.06/lb 	■ Dow (3/15/2018), \$0.15/tb
Wanhua (5/15/2016), \$0.04/1b	 Wanhua (3/1/2017), \$0.08/lb Dow (3/15/2017), \$0.10/lb 	BASF (4/1/2018), \$0.10/1b
 Dow (9/15/2016), \$0.06/lb Wanhua (9/15/2016), \$0.06/lb 	 BASF (4/1/2017), \$0.08/1b Dow (4/3/2017), \$0.10/1b 	 Huntsman (7/1/2018), \$0.12/lb
	 Dow (05/15/2017), \$0.12/lb BASF (05/15/2017), \$0.13/lb Wanhua (5/15/2017), \$0.12/lb 	
	■ Dow (8/15/2017), \$0.08/15	
	 Wanhua (09/15/2017), \$0.10/lb 	
	 Dow (10/15/2017), \$0.08/lb; BASF (10/15/2017), \$0.08/lb 	

As apparent from this chart, Defendants implemented their price increases in close proximity to one another's, mostly ranging from a couple of weeks to announcements made on the same day. Notably, the amount of their price increases was either identical or nearly identical.

98. Below is chart containing actual price-increase data and effective dates compiled using all *publicly reported* TDI price increase announcements between 2015 and 2018, largely by Defendants Dow, Wanhua, and BASF:

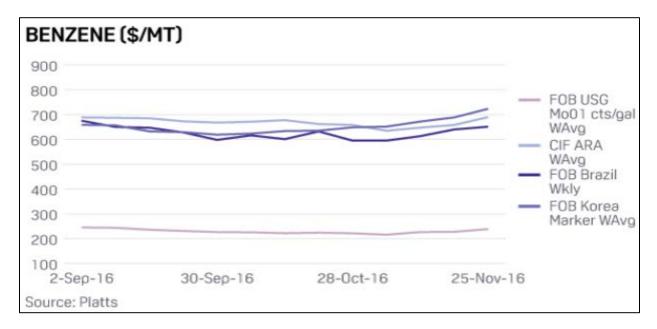
Covestro, Bayer and Mitsui with respect to both the MDI price-increase chart and the TDI price-increase chart shown further below. As for the TDI chart, Huntsman ceased marketing TDIs in 2005, when it sold that business to BASF.

2016	2017	2018
 Dow (3/17/2016), \$0.05/lb BASF (3/23/2016), \$0.08 Wanhua (3/30/2016), \$0.06/lb 	BASF (2/1/2017), \$0.10/1b Wanhua (2/15/2017), \$0.10/1b	BASF (2/1/2018), \$0.10/lb Wanhua (2/1/2018), \$0.10/lb
BASF (4/1/2016), \$0.08/1b Dow (4/15/2016), \$0.05/1b	Dow (3/21/2017), \$0.10/lb BASF (4/1/2017), \$0.08/lb	 Dow (3/1/2018), \$0.15/tb Wanhua (3/1/2018), \$0.10/tb
 BASF (5/13/2016), \$0.08/lb Wanhua (5/15/2016), \$0.04/lb Dow (5/17/2016), \$0.08/lb 	BASF (5/1/2017), \$0.10/lb Wanhua (5/15/2017), \$0.10/lb	BASF (4/1/2018), \$0.10/16
 Wanhua (6/15/2016), \$0.05/lb Dow (7/8/2016), \$0.05/lb BASF (7/21/2016), \$0.05/lb 	 Dow (8/15/2017), \$0.08/lb Wanhua (8/15/2017), \$0.08/lb BASF (8/20/2017), \$0.08/lb 	
 BASF (10/7/2016), \$0.10/lb Dow (10/11/2016), \$0.10/lb Wanhua (10/13/2016), \$0.10/lb 	 Dow (10/1/2017), \$0.12/lb BASF (10/1/2017), \$0.12/lb 	
• Dow (12/15/2016), \$0.10/16	Wanhua (12/1/2017), \$0.10/1b	

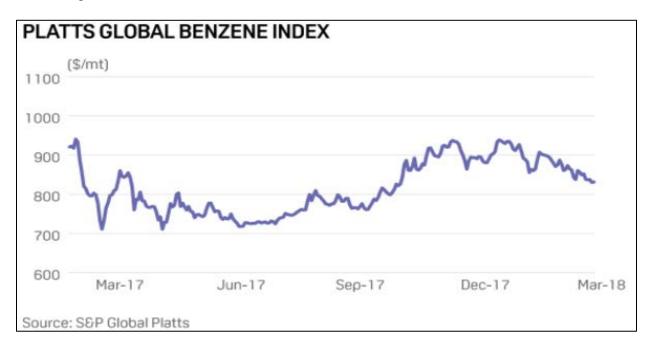
Once again, Defendants implemented their TDI price increases in close proximity, ranging largely from a couple of weeks to announcements made on the same day. The amount of Defendants' price increases was either identical or nearly identical.

- 99. Changes in demand for the major end-use of these products, polyurethane cannot explain the announced increased prices in these products.
- 100. Nor do changes in the price of raw materials for these products, which are the principal cost of manufacturing these products, explain the announced increases in the prices for these products. Covestro's CEO commented during an interview in late October 2016 that "[r]aw material prices have been dropping and are now at a low level, so the margin expansion to some extent has come from relatively stable pricing but reducing raw material costs." Similarly, Huntsman's CEO stated during an investor's call on July 28, 2016 that the improvement in Huntsman's margins has partly been driven by a "20% drop in benzene raw material costs and so forth. So I think it's a combination both of raw material benefits and also moving further downstream and improving margins there."

101. Covestro and Huntsman's statements are corroborated by the chart below showing that the price of benzene, an essential ingredient in the production of MDIs, in the latter part of 2016 was stable:

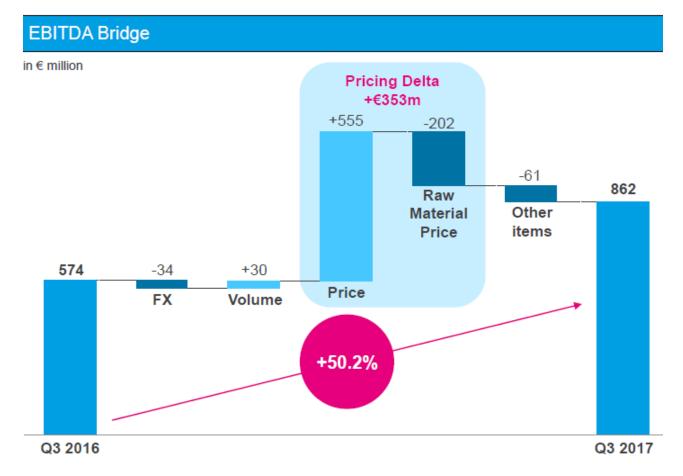


102. The price of benzene does appear to climb towards the latter half of 2017 according to this chart:



103. Nevertheless, Covestro's 2017 presentation explains that the increase in raw

material costs was not the cause of skyrocketing TDI and MDI prices but rather, the positive pricing delta was driven by TDI and MDI prices:



As noted in Covestro's 2017 Presentation document, "[s]elling price increases could more than compensate for higher raw material prices."

104. A China International Capital Corporation Limited ("CICC") results preview of Wanhua dated January 18, 2017, reported that MDI price had risen to record highs amid tight supply, noting that the "price of pure MDI now stands at Rmb 25,000/tonne, up 71% year on year and that the price of polymerized MDI is Rmb 25,000/tonne, up 127% year on year. On the contrary, the prices of main raw materials have increased by less than 50%." Observing that the MDI prices and raw material prices had a spread of Rmb 16,900/tonne, CICC concluded that "MDI profitability is at a historical high."

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- 105. As a result of Defendants' unlawful price-fixing conspiracy, Defendants reaped enormous profits from the supracompetitive prices of MDI and TDI products sold.
- 106. In 2016, Huntsman touted in its Annual Report that "[w]e strengthened our balance sheet by repaying \$560 million debt" and "our MDI EBITDA increased by 9%" in 2016.
- 107. In its 2017 Annual Report, Huntsman remarked that "the increase in revenues in our Polyurethanes segment for 2017 compared to 2016 was primarily due to higher average selling prices . . . the increase in segment adjusted EBITDA was primarily due to higher MDI margins" Huntsman further commented during its quarterly earnings call that

The increase in revenues in our Polyurethanes division for the three months ended December 31, 2016 compared to the same period in 2015 was primarily due to higher MDI average selling prices and higher MDI sales volumes. MDI average selling prices increased sharply in Asia primarily as a result of a competitor's outage. MDI sales volumes increased primarily due to higher demand in the Americas region. The decrease in adjusted EBITDA was primarily due to lower MTBE margins, partially offset by higher MDI margins and sales volumes.

- 108. Indeed, a Vertical Research Partners Materials Conference document prepared by Huntsman dated June 14, 2018, states that it was able to make over \$2.6 billion in debt repayments since January of 2016.
- 109. In February of 2017, BASF reported that its operating profit was six billion euros and polyurethane was responsible for 9% of BASF's total sales of 70 billion euros, with TDI alone accounting for an estimated 5%.
- 110. Covestro's 2017 Annual Report also reveals that sales in the polyurethanes segment were up 29.2% year over year to 7,660 million euros (compared to 5,927 million euros in the previous year) "[t]hanks to an altogether advantageous supply/demand situation, higher selling prices in Polyurethanes resulted in sales growth of 26.9%."
 - 111. Dow trumpeted in a 1Q 2018 earnings call that "Polyurethanes and CAV

benefited from strong demand and price increases in downstream systems applications as well as from tight MDI fundamentals."

112. Others also concurred with this analysis. According to an article published on *Handelsblatt Global* in February of 2017, the TDI market was experiencing an "unusual boom" with a price increase of approximately 60% since the beginning of 2016. The article noted that analysts estimate that manufacturers are able to achieve EBITDA margins of 50%.

TRADE ASSOCIATIONS AND INDUSTRY MEETINGS

- opportunities to meet and collude with one another to fix, raise, stabilize, and maintain elevated prices of MDI and TDI products by participating in various conferences, trade associations, seminars, workshops, dinners, and meetings. For example, Defendants BASF, Covestro, Dow, Huntsman, and Wanhua (through its subsidiary BorsodChem) were five of the six members of ISOPA, a European trade association for producers of diisocyanates. Their "Mission," *inter alia*, consisted of:
 - "ensur[ing] that all stakeholders can easily access accurate and up-to-date information on diisocyanates and polyols";
 - "[p]roduc[ing] statistics about the polyurethanes industry."

During the Class Period, Defendants BASF, Covestro, Dow, Huntsman and Wanhua met before, during, and after their meetings related to ISOPA and conspired to fix, raise, maintain, and stabilize prices of MDI and TDI products sold in the United States and elsewhere.

During all relevant times, Defendants Covestro, Bayer, BASF, Dow, Huntsman, Wanhua, and Mitsui were members of the American Chemistry Council ("ACC"), whose mission is to "deliver value to our members through advocacy, using best-in-class member engagement, political advocacy, communications and scientific research." Every year, ACC

holds a number of events, including seminars, workshops, conferences, trade shows, and dinners. Representatives of BASF, Covestro, Dow, Bayer, Huntsman, Wanhua, and Mitsui had the opportunity to meet and conspire before, during and after such ACC-related events and conspired to fix, raise, maintain, and stabilize prices of MDI and TDI products sold in the United States and elsewhere.

- During all relevant times, Defendants Covestro, BASF, Bayer, Dow, Huntsman, Wanhua, and Mitsui were members of the International Isocyanate Institute, whose aim is to promote the safe handling of MDIs and TDIs in the workplace, community, and environment. Representatives of BASF, Covestro, Bayer, Dow, Huntsman, Wanhua, and Mitsui had the opportunity to meet and conspire before, during, and after their meetings related to the International Isocyanate Institute and conspired to fix, raise, maintain, and stabilize prices of MDI and TDI products sold in the United States and elsewhere.
- During all relevant times, at least Defendants Covestro, BASF, and Huntsman were members of the Polyurethane Manufacturers Association ("PMA"), whose purpose is, among other things, "[t]o exchange and disseminate information among its members as to improvements, standards, processing of raw materials, and advancements in the economics relative to the polyurethane elastomer industry." Representatives of BASF, Covestro, and Huntsman had the opportunity to meet and conspire before, during and after their meetings related to the PMA and conspired to fix, raise, maintain and stabilize prices of MDI and TDI products sold in the United States and elsewhere.
- 117. During all relevant times, Defendants BASF, Covestro, Dow, Huntsman, and Wanhua were the sole members of the Diisocyanates Panel ("DII Panel") of the American Chemistry Council. The DII Panel "sponsors research on [MDIs] and [TDIs], monitors

impending regulations, legislation, and other initiatives affecting the production or use of diisocyanates, and develops appropriate responses." Representatives of BASF, Covestro, Dow, Huntsman, and Wanhua had the opportunity to meet and conspire before, during, and after their meetings related to the DII Panel and conspired to fix, raise, maintain, and stabilize prices of MDI and TDI products sold in the United States and elsewhere. Further, members of the DII Panel regularly interacted and coordinated activities with participants in other diisocyanates-related groups such as ISOPA, the International Isocyanate Institute, PMA, and the Center for the Polyurethanes Industry, among others.

- During all relevant times, Defendants BASF, Bayer, Covestro, Dow, Huntsman, Wanhua, and Mitsui were members of and have participated in the business of the Center for the Polyurethanes Industry ("CPI") of the American Chemistry Council. CPI covers all segments of the polyurethanes industry, including raw material producers, systems suppliers, processing machinery, and equipment manufacturers, as well as users of polyurethane materials who manufacture flexible or rigid foams, coatings, adhesives, sealants, or elastomers. Its purpose is "to promote the growth of the North American polyurethanes industry through effective advocacy, delivery of compelling benefits messages demonstrating how polyurethanes deliver sustainable outcomes, and creation of robust safety education and product stewardship programs."
- 119. Every year, CPI holds an annual conference called the Polyurethanes Technical Conference, which is the longest-running polyurethanes conference in North America and touts to be the "industry's premiere polyurethane business and networking event." As described by a conference attendee Paul Duffy during the 2014 Polyurethanes Technical Conference, "this conference is the premiere event for polyurethane professionals to exchange information,

brainstorm, recognize threats and so on."

- 120. The 2015 Polyurethanes Technical Conference took place at the Gaylord Palms Hotel in Orlando, Florida from October 5–7, 2015, with pre-conference activities starting on October 4. Representatives of BASF, Covestro, Bayer, Dow, Huntsman, Wanhua, and Mitsui had the opportunity to meet and conspire to fix, raise, maintain, and stabilize prices of MDI and TDI products before, during, and after their meetings, seminars, programs, workshops and other events offered at the 2015 Polyurethanes Technical Conference.
- 121. The 2016 Polyurethanes Technical Conference took place at the Hilton Baltimore in Baltimore, Maryland from September 26–28, 2016, with pre-conference activities starting on September 25, 2016. Among notable attendees were Richard Skorpenske of Covestro, Walter White of BASF (Conference Committee Chairman and Technical Manager at BASF), Tom Feige of Dow (Chair of CPI Steering Committee and Global Strategy Director for the Polyurethanes Business Unit at Dow), and Paul Mackey of Huntsman (Business Development Director at Huntsman Polyurethanes). During an interview at the 2016 Conference, Walter White of Defendant BASF, stated

The Conference really provides some world-class networking opportunities. I think the opportunity people most think of is the industry reception which will take place tonight, and it's a place where people can get together and reconnect with old friends and maybe make some new friends and really talk with industry professionals. There are some other networking opportunities that are probably a little bit less well known or a little bit less recognized. Those would be the meeting spaces outside of the presentations where between papers, folks can get together and talk and get to know each other. And then there are also networking opportunities as the suppliers and attendees of the show plan events and we can really get together and have little bit more informal discussions and get together and meet each other.

Representatives of BASF, Covestro, Bayer, Dow, Huntsman, Wanhua, and Mitsui had the opportunity to meet and conspire to fix, raise, maintain, and stabilize prices of MDI and TDI

products before, during, and after their meetings, seminars, programs, workshops and other events offered at the 2016 Polyurethanes Technical Conference.

Marriott in New Orleans, Louisiana from October 2–4, 2017. As noted in the ACC Supplement prepared by ICIS for the 2017 Polyurethanes Technical Conference, one of the feature topics covered at the 2017 Conference concerned the supply shortage of MDIs and TDIs that drove up prices in 2016 and into 2017. Representatives of BASF, Covestro, Bayer, Dow, Huntsman, Wanhua, and Mitsui had the opportunity to meet and conspire to fix, raise, maintain, and stabilize prices of MDI and TDI products before, during, and after their meetings, seminars, programs, workshops and other events offered at the 2017 Polyurethanes Technical Conference.

FACTORS INCREASING THE MDI AND TDI MARKETS' SUSCEPTIBILITY TO COLLUSION

123. Publicly available data on the MDI and TDI market in the United States demonstrate that it is susceptible to cartelization by Defendants. Factors that make a market susceptible to collusion include: (1) a high degree of industry concentration; (2) significant barriers to entry; (3) inelastic demand; (4) the lack of available substitutes for the goods involved; (5) a standardized product with a high degree of interchangeability between the products of cartel participants; and (6) inter-competitor contacts and communication.

1. Industry Concentration

- 124. A high degree of concentration facilitates the operation of a cartel because it makes it easier to coordinate behavior among co-conspirators.
- 125. In the United States MDI and TDI markets, at the time of the conspiracy, the Defendants named here accounted for over 90% and 76% of the respective markets.
 - 126. While the markets for MDI and TDI are sufficiently concentrated to facilitate

collusion, the years of low and stable pricing in the market establish that the number of manufacturers in the market was sufficient to drive competition. Absent collusion to limit production of MDI and TDI, prices would have remained at competitive levels.

- 127. Price increases cannot be explained by an exit by any of the MDI and/or TDI manufacturers, given there was none at the relevant time period.
- 128. Defendants have been able to maintain supracompetitive prices for MDI and TDI products without significant loss of market share to non-conspirators. Thus, Defendants have oligopolistic market power in the markets for MDI and TDI products.

2. Barriers to Entry

- 129. Supracompetitive pricing in a market normally attracts additional competitors who want to avail themselves of the high levels of profitability that are available. However, the presence of significant barriers to entry makes this more difficult and helps to facilitate the operation of a cartel.
- 130. Supracompetitive pricing in a market normally attracts additional competitors who want to avail themselves of the high levels of profitability that are available. However, the presence of significant barriers to entry makes this more difficult and helps to facilitate the operation of a cartel.
- 131. There are significant capital, regulatory, and intellectual property barriers to entry in the MDI and TDI market that make such entry time-consuming and expensive.
- 132. Start-up costs and regulatory oversight represent substantial barriers to entry in the MDI and TDI market. As Rachel Unctas, a senior consultant focused on isocyanates at the consulting firm Tecnon OrbiChem, noted in 2016, "[i]ndeed, because MDI manufacturing is hard to master, the market is difficult to enter." For example, it took Wanhua, now the largest global producer of MDI, decades to reach that pinnacle. It opened an MDI manufacturing plant

in Yantai, China in 1983 using technology licensed from Nippon Polyurethane Industry Company, but that facility was not fully operational until 1995. The plant was producing 220,000 metric tons of MDI annually when it closed in 2014. Wanhua has partly grown by acquisition, obtaining operations in various countries, including the United States, where it has substantial MDI sales. In 2011, it paid \$1.7 billion to acquire the Hungarian polyurethane chemical producer, BorsodChem. In 2017, it announced plans to build an MDI production facility in Louisiana, at a cost of \$1.12 billion.

133. Similarly, a 2017 Huntsman presentation stated that construction of a new MDI production facility would take seven years from project start to beneficial operation.

3. Demand Inelasticity

- 134. Price elasticity of demand is defined as the measure of responsiveness in the quantity demanded for a product as a result of change in price of the same product. It is a measure of how demand for a product reacts to a change in price. The basic necessities of life—food, water, and shelter—are examples of goods that experience nearly perfectly inelastic demand at or near the minimums necessary to sustain life. In other words, a person on the verge of dying of thirst will pay almost anything for water.
- 135. In order for a cartel to profit from raising prices above competitive levels, demand for the product must be sufficiently inelastic such that any loss in sales will be more than offset by increases in revenue on those sales that are made. Otherwise, increased prices would result in declining sales, revenues, and profits as customers purchased substitute products or declined to buy altogether. Inelastic demand is a market characteristic that facilitates collusion, allowing producers to raise their prices without triggering customer substitution and lost sales revenue.
 - 136. Demand for MDI and TDI is highly inelastic. MDIs and TDIs are key chemical

ingredients used in the manufacture of polyurethane, a versatile plastic material used in countless industries such as construction, appliances, electronics, automotive, clothing, packaging material, and so on. Because, polyurethane cannot be made without MDIs and TDIs, purchasers have little choice but to purchase MDIs and TDIs at the price at which it is offered. This gives Defendants significant pricing power, as well as an incentive to collude. As noted above, one publication stated in 2018 that the persistent supply shortages and growing demand was leaving "isocyanate buyers . . . [with] little alternative but to accept consecutive rounds of price increases, with some sellers heard to have taken a 'take it or leave it' attitude towards their price increase initiatives. . . ."

137. Thus, MDIs and TDIs are excellent candidates for cartelization because price increases will result in more revenue, rather than less, provided that most or all manufacturers participate.

4. Lack of Substitutes

- 138. For the same reasons that MDIs and TDIs have demand inelasticity, there likewise are no viable substitutes to MDIs and TDIs. This lack of viable substitutes for MDIs and TDIs is evidenced by data showing that during the Class Period, purchasers of MDIs and TDIs did not switch from MDIs or TDIs to another plastic material despite significant price increases. Rather, they paid for the inflated prices and overall demand in the industry continued to grow.
- 139. Thus, purchasers of MDIs and TDIs were held captive to the supracompetitive prices that resulted from Defendants' conspiracy to fix prices, rig bids, and allocate markets and customers.

5. Standardized Product with High Degree of Interchangeability

140. A commodity-like product is one that is standardized across suppliers and allows

for a high degree of substitutability among different suppliers in the market. When products offered by different suppliers are viewed as interchangeable by purchasers, it is easier for the suppliers to agree on prices for the goods in question and to monitor those prices effectively.

- MDIs of the same chemical composition are effectively commodity products because the primary mechanism through which they compete is price. The same holds true for TDIs. In an article published in February of 2016, Dr. Kai Pflug confirmed that MDIs and TDIs are "commodity chemicals" whose global market prices are susceptible to "immense pressure" caused by competition from Chinese producers. Further confirming their interchangeable nature is that there is little utility in attempting to distinguish the products based on quality, branding or detailing. Rather, the primary means for one manufacturer to differentiate its product from another's is through price competition. The need to compete on price can drive producers of commodity products to conspire—as they did here—to fix prices.
- In addition, the Tenth Circuit in *Urethanes* has already found in the prior litigation that this industry was "ripe for collusion," that market power was "concentrated in the hands of only a handful of firms," that "the market had high barriers to entry," that the products at issue were "homogeneous," and that there "were no close product substitutes available to consumers." *In re Urethane Antitrust Litig.*, 768 F.3d 1245, 1265 (10th Cir. 2014), *cert. dismissed*, 137 S.Ct. 291 (2016). These factors have not changed.

6. Inter-Competitor Contacts and Communications

143. As discussed above, Defendants' representatives met at various conferences, industry meetings, dinners, workshops, and seminars during the Class Period. Defendants were also able to meet and conspire through their active participation and memberships in various groups and organizations concerning diisocyanates such as ISOPA, ACC, the International Isocyanate Institute, PMA, CPI, and the DII Panel. For instance, Defendants' membership and

participation in closely knit groups such as the DII Panel, in which Defendants BASF, Covestro, Dow, Huntsman, and Wanhua, were the *sole* members, would have provided the Defendants with many opportunities to meet and conspire.

144. In addition, joint ventures and similar business arrangements among several Defendants—including BASF and Huntsman, who are joint venture partners in a large MDI production facility in China—regularly provide Defendants opportunities to meet and conspire.

VIOLATIONS OF SECTIONS 1 AND 3 OF THE SHERMAN ACT

- 145. Beginning at least as early as January of 2016 until the present, Defendants and their co-conspirators engaged in a continuing agreement, understanding, and conspiracy of trade with respect to the sale of MDI and TDI products in the United States, its territories, and the District of Columbia in unreasonable restraint of interstate trade and commerce, in violation of Sections 1 and 3 of the Sherman Act (15 U.S.C. §§ 1, 3).
- 146. The agreement, understanding, or conspiracy consisted of an agreement among the Defendants and their co-conspirators to fix, raise, stabilize, and/or maintain at artificially high levels the prices they charged and to allocate customers and markets for MDI and TDI products in the United States, its territories and the District of Columbia.
- 147. In formulating and effectuating this conspiracy, Defendants and their coconspirators did those things that they combined and conspired to do, including:
- (a) participating in meetings and conversations among themselves during which they agreed to limit production and thus restrict supply of MDI and TDI products, charge prices at certain levels, and otherwise to fix, increase, maintain or stabilize prices of, and to restrict capacity of, MDI and TDI products in the United States;
- (b) issuing price announcements consistent with, and selling MDI and TDI products at, the agreed upon prices; and

- (c) participating in meetings and conversations among themselves to implement, adhere and police the agreements they reached.
- 149. Defendants and their co-conspirators engaged in the actions described above for the purpose of carrying out their unlawful agreements to fix, maintain, raise or stabilize prices and to allocate customers and markets of MDI and TDI products.
- 150. During and throughout the period of the conspiracy alleged in this Complaint, Plaintiff and members of the Class directly purchased MDI and TDI products from Defendants at inflated and supracompetitive prices.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays as follows:

- A. That the Court determine that this action may be maintained as a class action under Rule 23 of the Federal Rules of Civil Procedure;
- B. That the contract, combination, or conspiracy, and the acts done in furtherance thereof by Defendants and their co-conspirators, be adjudged to have been a per se violation of Sections 1 and 3 of the Sherman Act (15 U.S.C. §§ 1, 3);
- C. That judgment be entered for Plaintiff and members of the Class against Defendants for three times the amount of damages sustained by Plaintiff and the members of the Class as allowed by law, together with the costs of this action, including reasonable attorneys' fees;
- D. That Plaintiff and the Class be awarded pre-judgment and post-judgment interest at the highest legal rate from and after the date of service of this Complaint to the extent provided by law; and
 - E. That Plaintiff and members of the Class recover their costs of this suit,

including reasonable attorneys' fees as provided by the law; and

F. That Plaintiff and members of the Class have such other, further or different relief as the case may require and the Court may deem just and proper under the circumstances.

DEMAND FOR JURY TRIAL

Pursuant to FED. R. CIV. P. 38(b), Plaintiff demands a trial by jury as to all issues so triable.

Date: July 31, 2018 Respectfully submitted,

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 $^{^\}dagger$ Pro Hac Vice application pending

^{*} Pro Hac Vice application forthcoming